

STATISTICAL SAMPLING

Multistate Tax Commission www.mtc.gov

This course is designed to be the first step in understanding and applying statistical sampling techniques. Appropriate use of sampling techniques contributes to reduced audit cost, reduced travel cost, improved audit results, and makes audits more defensible if challenged by taxpayers. In the near future, implementation of the Streamlined Sales Tax Project is expected to require the use of statistical sampling.

Objective: To provide participants with an understanding of basic statistical sampling techniques and how they are applied to sales and use tax audits. When the course is completed the auditor should be able to apply the basic principles and conduct a statistical sample. However, this course should be viewed as the first step and not the final step in obtaining a thorough understanding of statistical sampling.

Audience: The course is designed as a basic course for state and local sales & use tax auditors, supervisors and review section personnel.

Prerequisites: Familiarity with sampling concepts

Student Requirements: Each participant is required to have a notebook computer. The notebook computer should be equipped with a CD-Drive for the purpose of downloading software and Excel spreadsheet files. Many of the course examples, exercises and case studies are conducted using the Excel spreadsheet software.

Program Level: Intermediate

Program Content: Introduction to statistical sampling techniques and its application to sales and use tax audits.

Course Materials: Participants will receive a comprehensive course binder which includes the course material, questions, exercises and case studies. Participants will also be provided with statistical sampling and sample size software.

Advance Preparation: None

Instructional Delivery Methods: Lecture with problems sets.

Recommended CPE credit: 36 hours

Registration Information: Contact Antonio Soto at asoto@mtc.gov or 202-508-3846

Program – Day One – 8:00 AM – 5:00 PM

Lesson 1 - Introduction to Statistical Sampling

Lesson 2 - Defining the Population

Lesson 3 - Random Selection Methods

 [more...](#)

Program – Day Two – 8:00 AM – 5:00 PM

Lesson 4 - Populations, Samples, and Statistical Estimation

Program – Day Three – 8:00 AM – 5:00 PM

Lesson 5 - Sample Size Determination

Lesson 6 - Sample Unit Valuation

Lesson 7 - Evaluation of Sample Results

Program – Day Four – 8:00 AM – 5:00 PM

Lesson 7 - Evaluation of Sample Results, continued

Lesson 8 - Stratified Random Sampling

Program – Day Five – 8:00 AM – 12:00 PM

Lesson 8 - Stratified Random Sampling - continued

Lesson 9 - Other Sampling Plans

Lesson 10 - Documenting the Sampling Results